

RECLAMATION PLAN for Dumping site in respect of FCA proposal for Diversion of 1.92 Hectare of forest land has been proposed for construction of road from Chillon to Chowkimrigwal km 0/00 to 8/00.

The total length of the road is 8.0 kms in which length i.e. 3200 metres passed through the forest and 4800 mtr through private land. The road will be constructed in cut and fill method. A total quantity of 37051 cum of muck will be generated during the construction of this road. Since after excavation of earth, there will be some increases in volume of soil which is calculated @ 40%. The serviceable materials will be stacked at site in the form of stone/Aggregates i.e. 5558.00 m³, 31493.00 m³ of muck generated will be used for in dry masonry & edge wall, nearly 15% of muck generated will be used for leveling of road. After increases in volume 10097.00 cum , muck will have to be disposed of in the identified dumping sites as per reclamation plan.

The details of dumping site is as under:

S.No.	Name of dumping site	RD/KM	Area coming under dumping		Total
			Forest area	Non Forest Area	
1.	Dumping site No. 1	0/000 to 0/000	0.04 Hectare	0	0.04
2.	Dumping site No. 2	2/690 to 2/710	0.04 Hectare	0	0.04
3.	Dumping site No. 3	3/680 to 3/700	0.04 Hectare	0	0.04
4.	Dumping site No. 4	3/780 to 3/800	0.04 Hectare	0	0.04
		Total :-	0.16 Hectare	0	0.16

Thus all the muck generated will be dumped in the designated dumping sites. Three numbers of dumping sites designated as DS-1, DS-2, DS-3 & DS-4 have been identified for dumping the muck/debris to be produced during the construction phases of the project. It is proposed that the dumping site are treated in such a manner that these do not pose any problem to the environment of the locality. This reclamation plan has been formulated with the following objective.

1. To arrest the dumped muck in situ so that it does not find its way to the nearby drainage channels, thus altering the drainage pattern of the area.
2. To rehabilitate the dumped area over a period of time so that it merges with the adjoining natural landscape and does not stand out as a sore point.
3. To improve the aesthetic view of the dumping grounds/dumping site by planting suitable plants and trees species thereby increasing the vegetable cover in the area.
4. To stabilize the dumping sites by vegetative and engineering structure.

Implementation

The proposal will be implemented by the user agency itself at its own cost as detailed in this plan. The implementation of the plan will be supervised by the forest department from time to time and the progress will be periodically monitored. In case of default the sanction of diverted land may be revoked with suitable penalty as decided by the Govt. of India.

Strategy

Three pronged approach will be followed for reclamation of the dumping sites. In the first instance crate walls will be erected around the dumping site so that the required capacity for dumping of muck is created at the sites. The details drawing of the crates works to be undertaken are enclosed. The primary objective of the crate work will be to arrest the dumped muck to the dumping site and not to allow its spillage to the adjoining area eventually to nearby drainage lines. The capacity of the dumping sites has been calculated 14000 m³ as details in the table at page No. 103 and will be enough to hold the muck to be dumped in the each of the sites.

In the second phase once the dumping is complete it will be ensured that the dumping site is planted with the grasses, bushes shrubs so that it gives an aesthetic look. This vegetal cover will also help in binding the soil and will prevent its erosion for vegetating the dumping sites suitable local species will be preferred. However, it may be noted that the bulk of the muck to be dumped will be excavated materials which will be lacking in essential nutrients and organic matter and hence it will be desirable to increase the nutrients status of the top soil to be conducive to tree vegetal growth. For this purpose maturing of the top soil be done if required the imported soil be brought to replenish the top soil. Intently the grasses and bushes will be planted in the area of improve the soil condition. Once these grasses and bushes take hold to the site the trees species will be planted in the next phase. The Dumping site will be fenced with barbed wire fencing to prevent the entry of the stray cattle thereby ensuring the protection of the plant from grazing. Also due to inert nature of the soil, plant will be need extra care for their establishment for the purpose imported soil/organic manure will be added in each pit for easy establishment of plants. Watering of the plant in dry session will be provided to prevent mortality. The plantation will be further plant maintained in project cost for ten years when beating up of failure will be done.


The cost estimate of dumping site is enclosed as Annexure R1 at page No. 105 and the cost for the trees will be met from the yearly programme of plantation during rainy season. The plantation work will be started from the year following the completion of dumping site. However erection of the crate walls around the dumping sites will be done period to actual dumping. The total cost for reclamation Plan is Rs. 1871957.00 only.


Post reclamation arrangements:

Since the area in question is required by the user agency only for the temporary use of dumping. Hence the area will be reverted back to the forest department after implementation the reclamation plan, if so stipulated by the Govt. of India. However if at the time of so reverting back the forest department if any activity as per this reclamation plan is found wanting then the forest department may realize the cost of that activity from the user agency at the prevailing wage rates applicable in forest department and may get the same done departmentally at the project cost.

Date:- 26-12-2022

Place:- Shillai

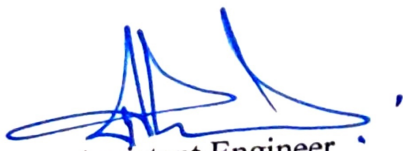

Executive Engineer
Shillai (BER) Division
H.P.PWD Shillai



Divisional Forest Officer,
Shillai Forest Division,
Shillai.


Detail of Measurement

Name of work **Construction of Chillon to chowki mrigwal km 0/00 to 8/00 (SH: Construction of wire crates for dumping sites)**

Sr. NO	Description	No. L x B x H	Quantity in CUM
1	Providing and laying of boulder apron laid on wire crates with 4mm dia wire conforming to 1:5:280 and 1:5:4826 in 100mmx100mm mesh (woven diagonally) including 10% extra for lapse & joints laid with stone boulders weighing not less than 25 kg each. Dumping Site No. 1 RD. 0/000 to 0/000		
	1 st layer	1x20x2.70x1.20	64.80 M3
	2 nd layer	1x20x2.40x1.20	57.60 M3
	3 rd layer	1x20x2.10x1.20	50.40 M3
	4 th layer	1x20x1.80x1.20	43.20 M3
	5 th layer	1x20x1.50x1.20	36.00 M3
	Dumping site No. 2 RD 2/690 to 2/710		
	1 st layer	1x20x2.70x1.20	64.80 M3
	2 nd layer	1x20x2.40x1.20	57.60 M3
	3 rd layer	1x20x2.10x1.20	50.40 M3
	4 th layer	1x20x1.80x1.20	43.20 M3
	5 th layer	1x20x1.50x1.20	36.00 M3
	Dumping site No. 3 RD 3/680 to 3/700		
	1st layer	1x20x2.70x1.20	64.80 M3
	2 nd layer	1x20x2.40x1.20	57.60 M3
	3 rd layer	1x20x2.10x1.20	50.40 M3
	4 th layer	1x20x1.80x1.20	43.20 M3
	5th layer	1x20x1.50x1.20	36.00 M3
	Dumping site No. 4 RD 3/780 to 3/800		
	1st layer	1x20x1.50x1.20	64.80 M3
	2 nd layer	1x20x2.40x1.20	57.60 M3
	3 rd layer	1x20x2.10x1.20	50.40 M3
	4 th layer	1x20x1.80x1.20	43.20 M3
	5 th layer	1x20x1.50x1.20	36.00 M3
			1008.00 m3


Assistant Engineer
Sub Division Sataun
HPPWD SATAUN



Executive Engineer
(B&R) Shillai Division
HPPWD SHILLAI



Divisional Forest Officer
Karnali Forest Division,
Sijonkha Ji Distt. Sirmour.H.P.

ABSTRACT OF COST

Name of work:- Construction of Chillon to chowki mrigwal km 0/00 to 8/00 (SH:
Construction of wire crates for dumping sites)

Sr. NO	Sub Head and Item of work	Qty	Rate	Unit	Amount
1	Providing and laying of boulder apron laid on wire crates with 4mm dia wire conforming to 1:5:280 and 1:5:4826 in 100mmx100mm mesh (woven diagonally) including 10% extra for lapse & joints laid with stone "boulders weighing not less than 25 kg each	1008.00 cum	1857.10	Per Cum	1871957
Total :-					1871957


Assistant Engineer
Sub Division Sataun
HPPWD SATAUN

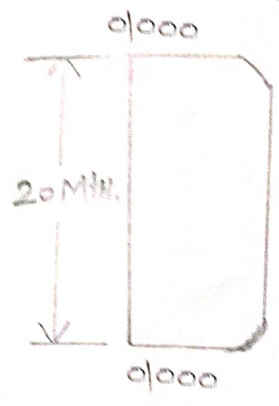

Executive Engineer
(B&R) Shillai Division
HPPWD SHILLAI

Division of 1.92 HA. of Forest land in favour of H.P.P.W.D for the
 010 chillers to chokimisingwal km 010 to 010 within the jurisdiction
 of Renukaji Forest Division in District - Shimour, Himachal Pradesh.

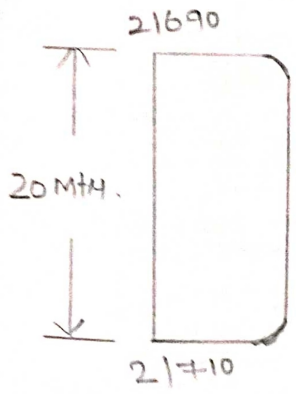
RECLAMATION PLAN

Dumping Site No. 1

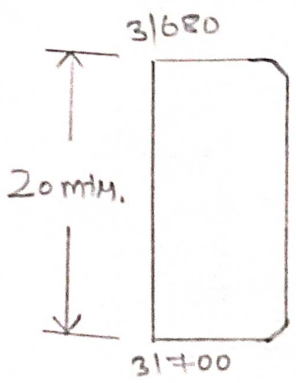
RN 01000 to 01000



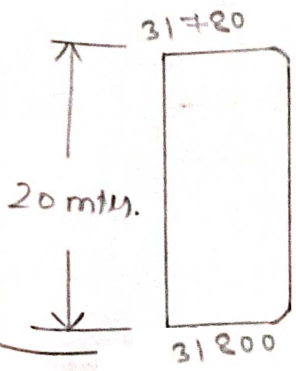
Dumping Site No-2



Dumping site No-3



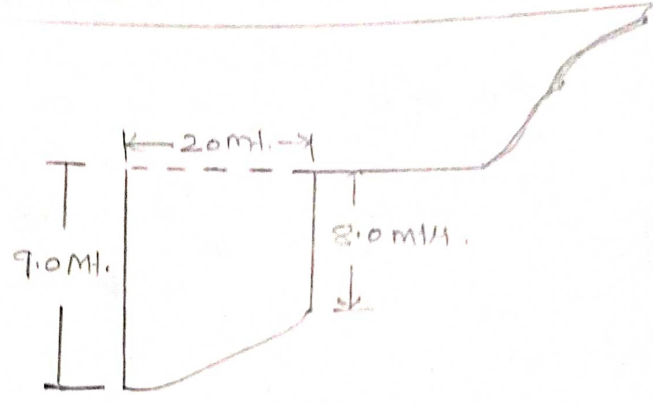
Dumping Site No-4



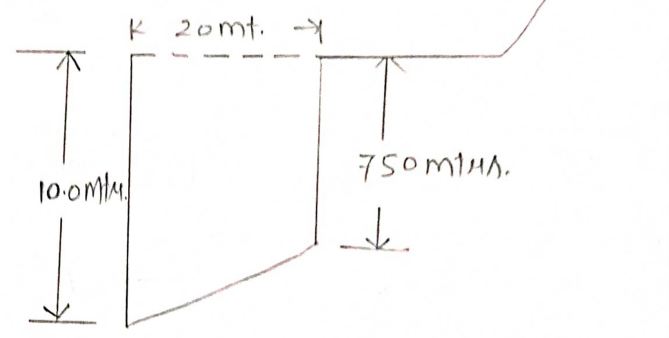
[Signature]
 Executive Engineer
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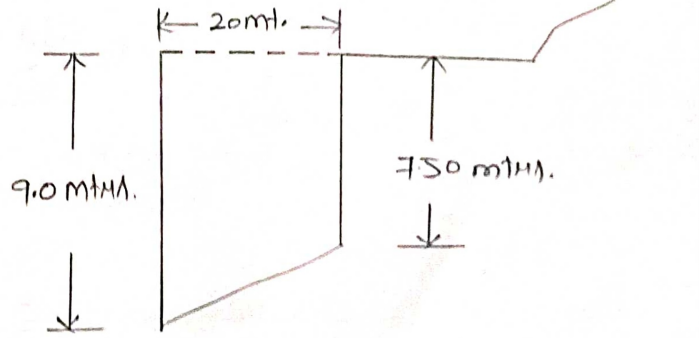
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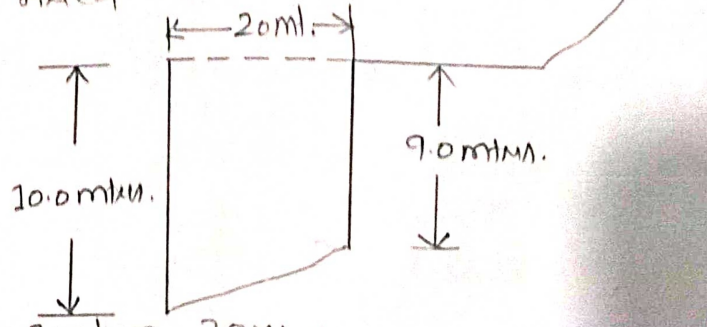
X-section Area $\Rightarrow 20 \times \frac{7+8}{2} = 170 \text{ m}^2$



X-section Area $\Rightarrow 20 \times \frac{10+7.5}{2} = 175 \text{ m}^2$



X-section Area $\Rightarrow 20 \times \frac{9+7.5}{2} = 165 \text{ m}^2$



X-section Area $\Rightarrow 20 \times \frac{10+9}{2} = 190 \text{ m}^2$